

Current Status of All Claims in the Application:

1. (Original) A storage system that stores data from a host system, the storage system comprising:
 - a housing;
 - a plurality of disk drives positioned within the housing; and
 - a controller that controls the disk drives, wherein at least two of the disk drives are in different modes during the transfer of data to at least one of the disk drives.
2. (Original) The storage system of claim 1 wherein the controller directs data to a first subset of disk drives and a second subset of disk drives simultaneously.
3. (Original) The storage system of claim 2 wherein at least one of the subsets includes five disk drives.
4. (Original) The storage system of claim 2 wherein the controller directs the data to each subset using parity protection.
5. (Original) The storage system of claim 1 wherein at least one third of the disk drives are in a stand-by mode during the transfer of data to at least one of the disk drives.
6. (Original) The storage system of claim 1 wherein at least one half of the disk drives are in a stand-by mode during the transfer of data to at least one of the disk drives.
7. (Original) The storage system of claim 1 wherein at least two thirds of the disk drives are in a stand-by mode during the transfer of data to at least one of the disk drives.

8. (Currently Amended) The storage system of claim 1 further comprising a first drive rail that retains the disk drives, wherein the disk drives are arranged in a first row of disk drives and a second row of disk drives, and wherein the disk drives in the first row are in a write mode ~~and~~ while the disk drives in the second row are in a standby mode ~~at approximately the same time.~~

9. (Currently Amended) The storage system of claim 1 further comprising a first drive rail that retains the disk drives, wherein the disk drives are arranged in a first row of disk drives, a second row of disk drives, and a third row of disk drives, and wherein the disk drives in the first and second rows are in a write mode ~~and~~ while the disk drives in the third row are in a standby mode ~~at approximately the same time.~~

10. (Currently Amended) The storage system of claim 1 further comprising a first drive rail that retains the disk drives, wherein the disk drives are arranged in a first row of disk drives, a second row of disk drives and a third row of disk drives, and wherein the disk drives in the first row are in a write mode ~~and~~ while the disk drives in the second and third rows are in a standby mode ~~at approximately the same time.~~

11. (Currently Amended) The storage system of claim 1 wherein the disk drives are arranged into six rows of disk drives, and wherein the disk drives in two of the rows are in a write mode ~~and~~ while the disk drives in four of the rows are in a standby mode ~~at approximately the same time.~~

12. (Currently Amended) The storage system of claim 1 wherein each of the disk drives ~~are~~ is in ~~the~~ a standby mode when data is not being transferred to the disk drives.

13. (Original) A combination comprising a host system and the storage system of claim 1.

14-29. (Canceled)

30. (Previously Presented) A method for storing data from a host system, the method comprising the steps of:

providing a plurality of disk drives positioned within a housing; and
controlling the disk drives so that at least two of the disk drives are in different modes during the transfer of data to at least one of the disk drives.

31. (Original) The method of claim 30 wherein the step of controlling the disk drives includes simultaneously directing data to a first subset of disk drives and a second subset of disk drives.

32. (Previously Presented) The method of claim 30 wherein the step of controlling the disk drives includes placing at least one third of the disk drives in a stand-by mode during the transfer of data to at least one of the disk drives.

33. (Previously Presented) The method of claim 30 wherein the step of controlling the disk drives includes placing at least one half of the disk drives in a stand-by mode during the transfer of data to at least one of the disk drives.

34. (Previously Presented) The method of claim 30 wherein the step of controlling the disk drives includes placing at least two-thirds of the disk drives in a stand-by mode during the transfer of data to at least one of the disk drives.

35. (Currently Amended) The method of claim 30 wherein the step of providing a plurality of disk drives includes the step of arranging the disk drives into at least two rows, and wherein the step of controlling the disk drives includes placing the disk drives in at least one of the rows in a write mode ~~and~~ while the disk drives in at least one of the rows in a standby mode ~~at substantially the same time.~~

36. (Currently Amended) The method of claim 30 the step of providing a plurality of disk drives includes the step of arranging the disk drives into at least three rows, and wherein the step of controlling the disk drives includes placing the disk drives in at least two of the rows in the write mode ~~and~~ while the disk drives in at least one of the rows in the standby mode ~~at substantially the same time.~~

37. (Currently Amended) The method of claim 30 wherein the step of providing a plurality of disk drives includes the step of arranging the disk drives into at least three rows, and wherein the step of controlling the disk drives includes placing the disk drives in at least one of the rows in a write mode ~~and~~ while the disk drives in at least two of the rows in a standby mode ~~at approximately the same time.~~

38. (Currently Amended) The method of claim 30 wherein the step of providing a plurality of disk drives includes the step of arranging the disk drives into six rows, and wherein the step of controlling the disk drives includes placing the disk drives in two of the rows in a write mode ~~and~~ while the disk drives in four of the rows in the standby mode ~~at approximately the same time.~~

39. (New) The storage system of claim 1 wherein the plurality of disk drives includes a first disk drive and a second disk drive, each disk drive including a rotatable storage disk, and wherein the first disk drive is in a write mode while another of the disk drives is in an idle mode that allows the storage disk of the second disk drive to rotate without any data being transferred to the second storage disk.

40. (New) The storage system of claim 39 wherein the first disk drive and the second disk drive have a substantially similar structure.

41. (New) A storage system that stores data from a host system, the storage system comprising:

a housing;

a plurality of disk drives positioned within the housing including a first disk drive having a rotatable first storage disk, and a second disk drive having a rotatable second storage disk; and

a controller that controls the disk drives so that the first disk drive is in a first mode wherein the first storage disk rotates without data being transferred from the host system to the first storage disk, while the second disk drive is in a second mode that is different than the first mode.

42. (New) The storage system of claim 41 wherein the second mode is a write mode wherein data is being transferred to the second storage disk.

43. (New) The storage system of claim 42 wherein the number of disk drives that are in the write mode is dependent upon the temperature of the disk drives that are in the write mode.

44. (New) The storage system of claim 41 wherein the second mode is a stand-by mode wherein the second storage disk is not rotating.

45. (New) A storage system that stores data from a host system, the storage system comprising:

a housing;

a plurality of disk drives positioned within the housing including a first subset of at least two disk drives and a second subset of at least two disk drives, each disk drive of the first subset including a rotatable first storage disk, each disk drive of the second subset including a rotatable second storage disk, each disk drive in the first subset being in a write mode wherein data is transferred between the host system and the first subset of disk drives, each disk drive in the second subset being in a stand-by mode wherein each of the second storage disks is not rotating; and

a controller that controls the number of disk drives that are in one of the write mode and the stand-by mode based upon the temperature of the disk drives in the write mode.

46. (New) The storage system of claim 45 wherein the disk drives have a substantially similar structure to each other.

47. (New) The storage system of claim 45 wherein the plurality of disk drives includes a third subset of at least two disk drives each including a rotatable third storage disk, each disk drive of the third subset being in an idle mode wherein each third storage disk rotates while no data is being transferred between the host system and the third subset of disk drives.

48. (New) The storage system of claim 45 wherein at least one third of the disk drives are in the stand-by mode.

49. (New) The storage system of claim 45 wherein at least two thirds of the disk drives are in the stand-by mode.

50. (New) The storage system of claim 45 further comprising a first drive rail that retains the disk drives, wherein the disk drives are arranged in a first row of disk drives and a second row of disk drives, and wherein the disk drives in the first row are in the write mode while the disk drives in the second row are in the standby mode.

51. (New) The storage system of claim 45 further comprising a first drive rail that retains the disk drives, wherein the disk drives are arranged in a first row of disk drives, a second row of disk drives, and a third row of disk drives, and wherein the disk drives in the first and second rows are in the write mode while the disk drives in the third row are in the standby mode.

52. (New) The storage system of claim 45 further comprising a first drive rail that retains the disk drives, wherein the disk drives are arranged in a first row of disk drives, a second row of disk drives and a third row of disk drives, and wherein the disk drives in the first row are in the write mode while the disk drives in the second and third rows are in the standby mode.

53. (New) The storage system of claim 45 wherein the disk drives are arranged into six rows of disk drives, and wherein the disk drives in two of the rows are in the write mode while the disk drives in four of the rows are in a standby mode.

54. (New) A combination comprising a host system and the storage system of claim 45.